# SPRINT NEXTEL CORPORATION'S

# APPLICATION FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR A TELECOMMUNICATIONS FACILITY

AT

160 West Street

IN

**CROMWELL, CONNECTICUT** 

May 23, 2007





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Via Hand Delivery

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May 23, 2007

Daniel F. Caruso, Chairman Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

RE: Sprint Nextel Corporation's Application for a Certificate / Cromwell

Dear Chairman Caruso:

On behalf of Sprint Nextel Corporation ("Sprint"), enclosed are an original and twenty-five copies of Sprint's application for a certificate of environmental compatibility and public need for the construction of a telecommunications facility at 160 West Street in Cromwell, Connecticut (the "Application"). In addition, four full-size site plans and four copies of the Town of Cromwell's Zoning and Wetland Regulations are included for bulk filing. A disk with an electronic copy of the Application and bulk files is also enclosed.

A check in the amount of \$1,000.00 is also attached in payment of the filing fee for the Application.

A copy of the Application has been served on the parties required by Conn. Gen. Stat. § 16-50l(b). For a list of those parties, see Tab 5 of the Application. If any of those parties would like the site staked out prior to the site walk on the date of the public hearing, I will be pleased to make the appropriate arrangements.

Very truly yours,

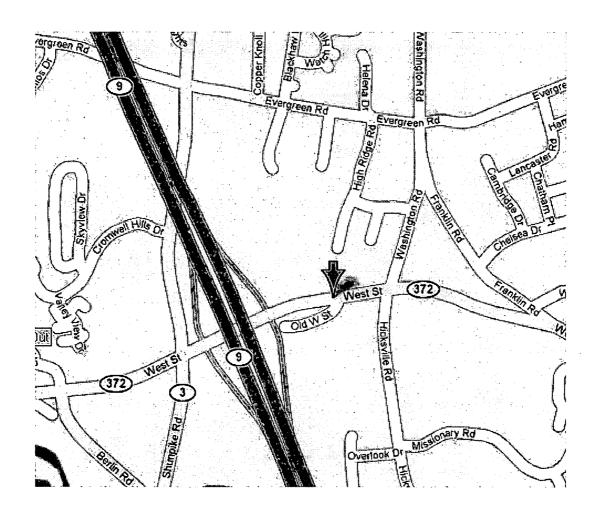
**BROWN RUDNICK BERLACK ISRAELS LLP** 

Thomas J. Regan

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Location	160 West Street, Cromwell		
Property Owner	160 West Street LLC		
CDMA or iDEN Site	iDEN		
iDEN Coverage Objective	Routes 9, 99, 372		
Flagpole Height	80'		
iDEN Centerlines	69' & 75'		
Compound Size	30' x 54'		



# INTRODUCTION

Sprint Nextel Corporation ("Sprint" or "Applicant") hereby applies to the Connecticut Siting Council ("Council") for the issuance of a certificate of environmental compatibility and public need for the construction, maintenance and operation of a telecommunications facility ("Facility") at 160 West Street in Cromwell, Connecticut (the "Site") (collectively, the "Application"). A U.S.G.S. topographic map and aerial photograph identifying the location of the Site are included under Tab 1. For this Site, Sprint is proposing an 80-foot flagpole with its antennas internally mounted.

# SECTION 1. PRELIMINARY INFORMATION

### A. STATUTORY AUTHORITY

The Application, accompanying attachments and bulk filed documents are submitted pursuant to Conn. Gen. Stat. § 16-50g et seq., and Conn. Agencies Regs. § 16-50j-1 et seq. The Application follows the format prescribed in the Council's "Application Guide for Community Antenna Television and Telecommunications Facilities," dated June 23, 2004 (the "Application Guide"). A copy of the Application Guide, with page number references to the Application, is included under Tab 2.

### B. LEGAL NAME OF THE APPLICANT

Sprint Nextel Corporation is a Delaware corporation. Sprint's principal business offices are located at One International Boulevard, Suite 800, Mahwah, New Jersey 07495. Telephone No. (201) 684-4000.

Sprint is licensed by the Federal Communications Commission ("FCC") in many major United States trading areas, including Connecticut.

C. CORRESPONDENCE AND SERVICE

All communications and correspondence with regard to this Application should be

addressed to:

Thomas J. Regan

Brown Rudnick Berlack Israels LLP

CityPlace I, 38th Floor

185 Asylum Street

Hartford, CT 06103-3402

Phone: 860-509-6522

Fax: 860-509-6501

Email: tregan@brownrudnick.com

D. NOTICE

Pursuant to Conn. Gen. Stat. § 16-50l(b), public notice of Sprint's intention to file this

Application was published in The Hartford Courant on December 27, 2006 and January 4, 2007

and in The Middletown Press on December 26, 2006 and January 3, 2007. Affidavits of

Publication from both newspapers are included under Tab 3.

On December 22, 2006 all abutting landowners were given notice of the filing of the

Application via certified mail. The list of abutters, a sample of the letter sent to the abutters, and

the return receipts are included under Tab 4. All but three return receipts were received (parcel

numbers 00373100, 00373000, 00321500 & 00161700 - one return receipt was for two parcels).

On April 30, 2007 the new owner of parcel numbers 00373100 & 00373000 was sent a revised

notice via certified mail and the return receipt has been received. On May 9, 2007 the new

owner of parcel number 00321500 was sent a revised notice via certified mail and that return

receipt was also received. Finally, for parcel number 00161700, a new mailing address was

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obtained from the Cromwell Tax Assessor's Office and the original notice was resent via first class mail, no return receipt requested. The resent letters and return receipts are included under Tab 4.

#### E. APPLICATION FEE

Pursuant to Conn. Agencies Regs. §16-50v-1a, the filing fee for this Application (\$1,000.00) was paid to the Council at the time of filing.

### F. PROOF OF SERVICE

Included under Tab 5 is a list of the individuals and agencies that received a complete copy of this Application via first class mail, pursuant to Conn. Gen. Stat. § 16-501(b).

# SECTION 2. PURPOSE & GOALS OF THE FACILITY

#### A. NEED

The United States Congress, in the Telecommunications Act of 1996, determined that there exists a national need for wireless services such as those provided by Sprint. In making such a determination, the federal government preempted the states' need to make that determination. The Telecommunications Act of 1996 also sought to foster competition in the marketplace and prohibit states from discriminating against functionally equivalent wireless carriers. Therefore, although a particular area may already have wireless coverage provided by a different carrier, Sprint has the right to also offer its services in that same area.

Today, many of Sprint's customers rely on their wireless service to be functional in their homes as well as on the road. As a result, Sprint aims to not only cover all of the major roads but the surrounding areas as well, many of which are residential. In this case, Sprint's Radio-Frequency Engineering Department has identified a significant gap in iDEN wireless service along Routes 9, 99 and 372 as well as in the surrounding areas of Cromwell. The location and

extent of the gap in Sprint's coverage was determined by analyzing the drive test data from surrounding facilities and analyzing call statistics and propagation models. Collectively, this data demonstrates that Sprint's customers are experiencing difficulty originating new calls and they are also experiencing a high number of dropped calls (greater than 2%) in the area. Overall, these factors have resulted in substandard service along Routes 9, 99 and 372 and the surrounding area of Cromwell.

# **B. STATEMENT OF BENEFITS**

The addition of a wireless telecommunications facility in this area will have both economic and public welfare benefits. While this Facility will benefit wireless subscribers, it will also improve public safety in the area.

Wireless services are beneficial to residents, business people and tourists traveling through Cromwell. Typically, business people such as deliverymen, repairmen, veterinarians, salesmen, real estate agents and construction personnel find that having cellular service is essential in allowing them to remain accessible while traveling. Even people who do not have cellular service benefit from the ability to easily contact traveling cellular service subscribers.

Not only will Sprint's customers benefit from this Facility, customers of other carriers who do not currently have coverage in the area will also benefit. Sprint is actively marketing space on this Facility to competing wireless providers in order to minimize the proliferation of towers in the Cromwell area. To date, no other carriers have expressed an interest in collocating.

Sprint's improved wireless service will also offer a great benefit to the public in that safety and emergency situations can be quickly reported and, in turn, responded to by state or municipal officials. To that end, Sprint will allow the Town of Cromwell (the "Town") and any emergency response system to use the Facility without charge, provided such use is consistent

with the structural integrity of the flagpole. The Town has not expressed an interest in using the Facility at this time; however, the offer will stand in the future.

This Facility will also be in compliance with the requirements set forth in the Wireless Communications and Safety Act passed by Congress in 1999 (otherwise known as the "Enhance 911" or "E911" requirements). Enhanced 911 service gives emergency dispatchers the ability to answer wireless calls promptly, obtain the caller's mobile number, and pinpoint the calling location. Sprint is currently in the final phase of implementing the E911 requirements.

# SECTION 3. SITE SEARCH

# A. TECHNICAL ALTERNATIVES

Common alternatives to monopole technology used in conjunction with the iDEN network technology include microcells or repeaters. A microcell is a low-power system resembling a small version of a cell site and a repeater is used primarily for in-building improvement. These alternative technologies are useful for filling small gaps in coverage or providing service in buildings, but are severely limited by the amount of coverage they can provide and capacity they can handle. Because the current gap in service in this area of Cromwell is significant, these alternatives are not realistic solutions.

To provide adequate service in this location, antennas must be sufficiently high to allow the cell to communicate with the mobile and for the mobile to communicate with the cell. In some cases, communication from the cell to the mobile can be improved by using a higher power at the cell. However, this approach does not improve communication from the mobile to the cell.

Should Sprint require additional or improved service in smaller target areas following the construction of this monopole, Sprint would consider these alternatives.

### **B.** CANDIDATE SEARCH

After Sprint analyzed its gap in iDEN coverage in this area of Cromwell as well as its need to off-load capacity from surrounding sites, Sprint used computer modeling to identify an area where a telecommunications facility must be located to provide the requisite coverage.

Once the area was defined, Sprint's Real Estate Department searched for existing buildings, structures and towers in the area suitable for Sprint's purposes.

In this part of Cromwell there are no existing towers, utility transmission facilities, tall buildings or other tall structures on which Sprint could locate a telecommunications facility. In addition, any existing towers are too far from the target area to provide sufficient coverage.

When Sprint exhausted the possibility of collocating on an existing tower or attaching to an existing structure, Sprint began its search for raw land parcels to build a monopole. In this case, Sprint considered four raw land candidates, as follows.

Candidate	Location	Evaluation
Washington Ridge Condominiums	Highridge Road & Patricia Lane	The owners of the condominium association were not interested and the parcel is too densely residential.
Steven Chernock	80 Shunpike Turnpike	The owner entertained a proposal but rejected it due to other development plans for the site.
Two Bad Dudes Enterprises, LLC	154 West Street	The owners were not interested and the parcel is too small.
S & A Realty	159 West Street	The owners were not interested.

# C. CONSULTATION WITH THE TOWNS OF CROMWELL & MIDDLETOWN

On September 7, 2006, Sprint provided notice of the filing of the Application to Paul Beaulieu, First Selectman of the Town of Cromwell (the "60-day Notice"). Sprint enclosed a package of materials with the notice including: a radio-frequency engineering information packet, a site plan and a Visual Resource Evaluation Report prepared by Vanasse Hangen Brustlin, Inc. As this Site is in close proximity to the Middletown town line, Sprint also provided Sebastian N. Giuliano, Mayor of the Town of Middletown, with a copy of the 60-day Notice. The 60-day Notice is included under Tab 6. Because the site plan, Visual Resource Evaluation Report and RF plots contained in the 60-day Notice are substantially similar to those provided later in this Application, they have not been included under Tab 6.

On November 2, 2006, Howard Polnow of Sprint, Alitz Abadijan of URS Corp., and Thomas Regan of Brown Rudnick met with Craig Minor, the Cromwell Town Planner, to discuss Sprint's proposal and, specifically, its candidate search process. Mr. Minor subsequently discussed the proposal with the Cromwell Planning and Zoning Commission, but Sprint did not receive any comments from Cromwell on its 60-day Notice. The Town of Middletown did not respond to Sprint's 60-day Notice.

# SECTION 4. THE SITE

#### A. LOCATION & LAND USE

The Facility is located on a 3.53-acre parcel located at 160 West Street in Cromwell, Connecticut (Parcel I.D. No. 00033900). The parcel, owned by One-Sixty West Street, LLC, is zoned BUS (Business District) and is currently occupied by single-story office buildings and associated parking areas. The Facility will be located in the northwest corner of the parcel adjacent to a wooded buffer area. The buffer area currently separates this commercial area with the residential areas to the north side of the parcel. Land use within the general vicinity of the Facility is comprised of medium-density residential parcels, the commercial buildings located on the host property and highway infrastructure. Larger commercial and retail land uses are located along Route 372 and Route 3 to the west of the parcel.

Topography in the area is generally characterized by rolling hills that range in elevation from approximately 8 feet above mean sea level ("AMSL") to 288 feet AMSL. The monopole will be located at 132 AMSL. A site plan is included under Tab 7.

The Town's Zoning Regulations address wireless communication facilities in Section 11.11.<sup>2</sup> Although this Facility is not subject to the Town's local zoning regulations, Sprint's Application to the Council fulfills many of the goals of the Town's zoning regulations as they pertain to wireless communication facilities. According to the Zoning Regulations, "the intent of this proposed regulation is to provide for the establishment and or expansion of wireless telecommunication services within the Town of Cromwell while protecting neighborhoods and minimizing the adverse visual and operational effects of wireless telecommunications facilities through careful design, siting and screening." Specifically, Section 11 of the Town Regulations seek to 1) "[m]aximize use of existing and approved towers and other structures";

2) "[e]ncourage providers to co-locate their facilities on a single tower"; 3) [s]ite facilities below visually prominent ridge lines"; 4) "[m]inimize the location of facilities in visually sensitive areas"; 5) "[e]ncourage creative design measures to camouflage facilities"; 6) "[p]rotect historic residential areas from potential adverse impacts of such towers"; and 7) "fa]void potential

<sup>1</sup> Four full-sized site plans have been bulk filed.

<sup>&</sup>lt;sup>2</sup> Four copies of the Town of Cromwell's Zoning Regulations and Inland Wetlands and Watercourses Regulations have been bulk filed.

damage to adjacent properties from tower failure through engineering and careful siting of tower structures."

In fact, in this Application, Sprint addresses all those goals: 1) maximize use of existing structures, see page 7; 2) collocation, see page 7; 3) site facilities below ridge line, see page 7; 4) avoid visually sensitive areas, see page 19; 5) encourage camouflaging, see page 17; 6) protect historic areas, see page 22; and 7) site tower so as to avoid potential damage to adjacent properties, see page 7. Therefore, although Sprint is not required to comply with the Town's Zoning Regulations, Sprint is, for all practical purposes, achieving the majority of the goals for wireless telecommunication services the Town has set forth in its Regulations.

### B. ACCESS ROAD

Access to the Site emanates from West Street and goes through the existing paved parking lot.

### C. MONOPOLE

To reduce the visual impact of the Facility, Sprint is constructing an 80-foot monopole camouflaged as a flagpole. The 80-foot monopole will have space for multiple carriers. Sprint will locate two sets of antennas internally with centerlines at 75 feet and 69 feet. An ice bridge will connect the monopole to the compound.

The monopole will be designed and constructed in accordance with the American National Standards Institutes/Electronic Industries Association's Manual #222 -- Revision F, "Structural Standards for Steel Antenna Towers and Antenna Support Structures." The exact foundation design, diameter and thickness of the structure will be determined by the manufacturer based on specified loading and soil analyses for the Site.

### D. COMPOUND

Sprint plans to construct a 30-foot by 54-foot gravel compound in the back, western corner of the parcel off of the parking lot. Sprint tailored its compound to fit within the cleared area between the pavement and the woods, therefore, no clearing will be necessary. A small existing paved area for the dumpster will be removed and that space incorporated into the compound. The compound will be surrounded by an 8-foot high wood stockade fence with arborvitae surrounding it on the north, east and south sides (the west side faces the woods). Inside the compound, Sprint will construct a 12-foot by 20-foot equipment building with a brick façade to match the nearby building. In the equipment building will be the power, battery, radio and growth cabinets. The cabinets will also house wireless switching, processing and monitoring equipment, as well as equipment for power conversions and grounding for surge protection.

The equipment will be of a solid-state nature and will emit negligible amounts of noise.

The noise emitted by the equipment, in accordance with Connecticut Department of

Environmental Protection ("DEP") standards, will not increase the noise levels at the property

boundaries beyond acceptable levels.

A construction schedule and cost estimate for the Facility are included under Tab 8.

# SECTION 5. COVERAGE

### A. HEIGHT JUSTIFICATION

Sprint's Radio-Frequency Engineering Department has identified a critical coverage gap along Routes 3, 9, and 372 as well as in the surrounding areas of Cromwell. Sprint considers the minimum acceptable signal level to be -81 dBm for in-vehicle coverage and -76 dBm for in-building coverage. Sprint's existing signal strength is below -81 dBm in the majority of the area that Sprint is seeking to cover with this site. This gap was confirmed using computer

software that maps the signal strength from the facilities in the surrounding area. This gap was also confirmed by drive test data.

For Sprint to fill this deficiency in coverage and allow the Facility to work in conjunction with surrounding sites as well as be able to off-load capacity from surrounding sites, Sprint has determined that it needs two sets of antennas with centerlines at 75 feet and 69 feet. These heights ensure adequate signal strength at the periphery of the coverage area. At lesser heights, the coverage provided at the periphery would limit Sprint's capability to hand-off calls to adjacent sites. As the traffic at this Facility and the surrounding sites increases, the quality of the signal at the periphery will deteriorate and result in dropped calls. Clearly, a network cannot be built effectively relying on the minimum signal strength. Therefore, it is crucial to maintain more than the absolute minimum signal level at this Facility.

Three coverage plots have been included under Tab 9. The first plot demonstrates

Sprint's current coverage in the area. The second plot demonstrates the coverage provided by
the Facility in isolation. The third plot demonstrates the coverage from the Facility in
conjunction with the existing surrounding sites.

### B. FORECAST OF MAXIMUM CAPABILITY

Sprint has implemented a digital network to provide a P.02 grade of service. A P.02 grade of service means that a subscriber of the system will be able to place calls 98 percent of the time during the busiest (peak) hours of the day. During non-peak times, the grade of service will be better than P.02.

Cells, which are designed and equipped for a given capacity, will normally operate at much less than capacity during the growth of the system. Accordingly, Sprint actually provides

a much better grade of service while traffic in each cell increases until it reaches the load it was designed to handle.

As Sprint's digital network evolves, Sprint-Nextel monitors the actual grade of service on a cell-by-cell basis. Factors affecting the grade of service are:

- Call attempts
- Call holding time
- Call distribution over time (average and peak)
- Call distribution over geography (users in weaker coverage areas negatively affect capacity of the cell)

If the grade of service for any single cell falls below the desired grade of service, Sprint will take steps to expand its facilities that serve the cell. These steps include 1) antenna changes; 2) cell balancing through call processing parameters and power adjustments; and 3) adding channels. These steps all serve to delay the process of cell splitting.

Based on the current and projected number of subscribers in this area, as well as the current and projected usage patterns, it is anticipated that additional cell splitting at this location will not be required for at least five years.

# SECTION 6. ENVIRONMENTAL IMPACT

### A. MITIGATION MEASURES

The selection and design of the Facility has taken into account potential impacts to: wetlands and water resources; air quality; noise; traffic patterns; visibility and aesthetics; vegetation; wildlife; and historic, architectural, archaeological, cultural and recreational resources. The following review demonstrates that the activities proposed by Sprint will not cause a significant change or alteration in the physical and environmental characteristics of the Site.

# (1) Water Resources

No adverse impact on water resources is anticipated as a result of the operation of the Facility. The Facility will not require any water usage nor is any wastewater discharge associated with the Facility. Furthermore, there are no water supply or sanitary facilities at the Facility.

The greatest potential for impacts on water resources exists from soil erosion and sedimentation during Site development. Absent control measures, exposed soil surfaces could be vulnerable to erosion from direct precipitation and storm water runoff. Eroded soils could be carried to downstream water courses and/or wetlands and deposition of soil sediments within wetlands or water courses could, in turn, have an adverse impact on wetlands, in-stream flora and fauna and water quality.

The plan of development for the Facility will include erosion and sediment control measures designed in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control. These erosion and sediment control measures will perform one or more of the following functions: minimization of soil exposure, control of runoff, shielding of the soils, binding of the soils and trapping of sediments. Prior to any land disturbance activities, sediment barriers will be installed downslope of all areas where soil will be exposed. Upon completion of site work, all disturbed areas will be permanently stabilized with seed and mulch.

In addition, the physical structures will be made of common building materials and will not produce any environmentally damaging leachates. No transformers containing polychlorinated biphenyls (PCBs) will be used at the Facility.

### (2) Wetlands

No wetlands or watercourses were identified at, or within 200 feet of, the Facility based on a field inspection completed by Mr. Thomas Pietros, a qualified soil scientist with Soil Science and Environmental Services, Inc. Based on a review of the Cromwell on-line GIS map viewer, the closest wetlands are located approximately 225 feet west of the Site, and the closest water body is located approximately 2,000 feet southwest of the Site. Therefore, Sprint does not anticipate that any wetland or watercourses will be significantly affected by the proposed development at the Site. Two wetlands maps are attached under Tab 10.

As no direct impacts to wetlands and no removal of trees are associated with Sprint's construction activities, no significant change in surface features (e.g., wetland fill, deforestation or water diversion) will result at the Site, in accordance with the National Environmental Policy Act categorical exclusion list.

### (3) Air Quality

No air pollutants will be generated during the normal operation of the Facility. If a power outage occurs which exceeds 24 hours, a diesel powered electrical generator may be brought to the Site. Since its use will be infrequent, only minimal discharges of the by-products of combustion (exhaust gases) will occur. These infrequent discharges are not expected to have an adverse impact on air quality.

The only vehicular access to the Site will be for regularly scheduled equipment maintenance and emergency repairs. On average, one trip per month to the Facility is expected. Thus, impacts on air quality from automobile exhaust emissions are expected to be minimal.

# (4) Noise

The only noise associated with the Facility will be during the construction of the foundation for the monopole base and during the erection of the pole and antennas. The noise from the construction is anticipated to last approximately six weeks. Noise associated with the use of the portable generator will be infrequent and diminished by the location of the Facility and the surrounding vegetation.

# (5) Traffic Pattern

During construction, the project will generate a small amount of traffic as workers arrive and depart and materials are delivered. Traffic generation will be comparable to that generated by the construction of a single family house. Upon completion, traffic will be limited to an average of one monthly maintenance and inspection visit. No traffic problems are anticipated.

### (6) Visibility and Aesthetics

The aesthetic impacts associated with the Facility have been minimized to the greatest extent possible with the camouflaging of this monopole as a flagpole and with its location directly adjacent to a commercial building as well as the woods to the north and west of the property. In addition, the equipment pad and associated ground mounted equipment will be relatively small and will be well screened by a wooden fence.

### (7) Vegetation & Soil

The Site consists of 3.53 acres of land improved with single-story commercial office buildings. Remaining areas of the Site are occupied by paved parking areas, maintained lawn and landscaped areas, and a row of mature white pine (*Pinus strobus*) along the northern boundary of the Site. The Facility is located in the northwestern portion of the parcel in an area that is partially covered with bituminous asphalt-paved parking areas and associated bituminous

curbing and lawn areas. Access to the Facility is provided via an easement extending north from West Street over the existing paved parking area. No forested areas are located on the Site; however, a forested area predominantly consisting of mature deciduous trees, with an average diameter of 6- to 12-inches at breast height, is located adjacent to the Site on the western side.

# (8) Wildlife

Although there is a forested area to the west of the Facility, the Facility is not anticipated to have a significant impact on wildlife. Sprint does not anticipate any significant impact on wildlife because its development activities will take place entirely on an existing cleared/disturbed area consisting of pavement and maintained lawn. In addition, there is extensive nearby human disturbance – the commercial office buildings, the paved and landscaped areas, and the large residential development to the north of the Site.

There is the possibility of impacting wildlife during the construction of the Facility. However, wildlife in the area are likely sufficiently adapted to disturbed conditions based on the existing human disturbance at the Site. If wildlife is displaced during the construction activities, they most likely can find temporary suitable habitat in nearby areas until they can return following construction. Wildlife present in undisturbed areas, specifically the forested area to the west of the Facility, will likely relocate further west and north into the forested area, until they can return following construction.

As a result, no long-term impacts to wildlife are anticipated from the proposed activities at the Site. The short-term impacts due to construction activities are not anticipated to adversely impact wildlife due to the presence of nearby suitable habitat for wildlife to relocate until the construction activities are complete. Since the Facility will be unattended, no disturbance of wildlife during routine operation of the Facility is expected. In addition, in accordance with the

DEP's Natural Diversity Data Base, there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur at, or in the vicinity of, the Site.

# **B.** NATURAL CHARACTERISTICS

According to the Bedrock Geological Map of Connecticut compiled by John Rogers in 1985, bedrock geology underlying the Site is identified as part of the Portland Arkose formation. This formation/bedrock consists of reddish-brown, medium to coarse-grained, sandstone-like, sedimentary rock. Arkose, commonly known as brownstone contains quartz, feldspar, and rock fragments and is the most common sedimentary rock of the Central Lowlands. No bedrock outcrops were observed at or within the general vicinity of the Facility. A bedrock geological map is attached under Tab 11.

According to the National Cooperative Soil Survey, soils identified at the Facility are classified as Hartford Sandy Loam, 3-8% slopes (33B). This mapping unit occurs primarily on outwash plains on valleys and terraces on valleys and consists of sandy glaciofluvial deposits derived from sandstone and/or basalt. Soils of this mapping unit are somewhat excessively drained with a low available water capacity to a depth of 60 inches. Hartford Sandy Loam soils, which have no zone of water saturation within a depth of 72 inches and which contain approximately 4% of organic matter content in the surface horizon, do not meet hydric soil criteria. This field classification is generally consistent with published information for the area (http://websoilsurvey.nrcs.usda.gov/app/).

No hydric (wetland) soils were identified at, or within 200 feet of, the lease area based on a field inspection completed by Mr. Thomas Pietros.

# C. VISUAL RESOURCE EVALUATION

In May 2006, Vanasse Hangen Brustlin, Inc. ("VHB") prepared a Visual Resource Evaluation Report for the Facility (Tab 12). The Visual Resource Evaluation Report contains a narrative, photolog documentation map, photographic simulations and a viewshed map. The evaluation was conducted to identify specific areas from where the Facility is likely to be visible. For the purposes of the evaluation, a 2-mile radius surrounding the Site was chosen as the study area (the "Study Area"). Portions of Interstate 91, Route 9, Route 3, Route 99 and Route 372 are all contained within the Study Area. In total, the Study Area contains roughly 105 linear miles of vehicular roadways.

Surrounding the Study Area are gently rolling hills ranging in elevation from approximately 8 feet AMSL to approximately 288 feet AMSL. The tree cover within the Study Area consists mainly of mixed deciduous hardwood species that average 50 feet in height. The tree cover occupies approximately 38% of the Study Area. The Study Area also includes large tidal marsh areas associated with the Connecticut River and Mattabesset River. In total, the Study Area features approximately 270 acres of surface water.

VHB anticipates year-round visibility from approximately 112 acres, or just over one percent of the Study Area. This includes a 57 acres of visibility over a tidal marsh located nearly 2 miles to the south of the Site and 16 acres of visibility over an open parking lot associated with a large shopping plaza to the west of the Site. Otherwise, visibility is anticipated in the immediate vicinity of the Facility along Highridge Drive, West Street, Washington Street and Hicksville Road. There will also be some visibility from Arrowhead Drive and Route 3. Approximately 24 residences will have partial year round views of the flagpole. These residences are located within nearby residential areas to the north of the Site. The existing

landscaping (trees and shrubs) within that residential area is sufficient to significantly minimize any anticipated views.

The design of the monopole – an 80-foot flagpole – and its setting on commercial property will also serve to minimize potential visual impacts. Seasonal visibility (leaf-off conditions) is estimated to be an only an additional 15 acres. The seasonal visibility will be limited to the periphery of areas with year-round visibility.

# D. BALLOON FLOAT & SIGN DISPLAY

To enable the public to ascertain the visibility of the Facility, Sprint will raise a balloon at the Site with a diameter of at least three feet on the day of the Council's first hearing session on the Application (weather permitting) or at a time otherwise specified by the Council. In addition, Sprint will post a sign on the subject property at least ten business days prior to the public hearing. The sign will be at least 6 feet by 4 feet and will have the Applicant's name, type of facility, height, public hearing date and contact information for the Council.

### E. SAFETY ANALYSIS

The Facility will not pose a health threat to the community-at-large or the employees who visit the Site. To verify that the Facility will not pose a health threat, Sprint analyzed the amount of radio-frequency energy emitted by its antennas (see Tab 13 for the analysis). This analysis was performed using a worst case scenario with the antennas on the monopole pointing straight down. Under this worse case scenario, the highest calculated levels of radio-frequency energy are measured at the base of the monopole.

Sprint's analysis determined that the amount of radio-frequency energy emitted by the antennas (known as the power density), as calculated at the base of the monopole, would be 0.5673 milliwatts per centimeter squared ("mW/cm2"). A power density of 0.5673 mW/cm2

means that the radio-frequency energy at the Facility will never be greater than 19.15% of the maximum permissible exposure, which is 1.0 mW/cm2 as specified by the FCC. Therefore, Sprint's analysis clearly shows that the maximum level of radio-frequency energy emitted at the Facility will be well below all applicable health and safety limits.

### F. NATIONAL ENVIRONMENTAL POLICY ACT REVIEW

As a licensing agency, the FCC complies with the National Environmental Policy Act ("NEPA") by requiring its licensees (including Sprint) to review their proposed actions for environmental consequences. If a licensee's proposed action falls within one of the "listed" categories within NEPA (specifically, the categories listed within 47 CFR §1.1307), the licensee is required to perform an environmental assessment and disclose the results to the FCC. The "listed" categories address issues such as the presence of wilderness areas, wilderness preserves, endangered or threatened species, critical habitats, historic districts, sites, buildings, structures or objects, Indian religious sites, flood plains and wetlands.

EBI Consulting prepared a NEPA Screening Report to investigate any environmental consequences that may arise from Sprint's plans for the Facility in Cromwell. The NEPA Screening Report is attached under Tab 14. In its report EBI Consulting determined that the Facility is not located in an environmentally sensitive area nor does it fall under any of the NEPA "listed" categories in 47 CFR §1.1307.

### (1) Impact Reviews

As part of the NEPA review, EBI Consulting contacted the Connecticut Commission on Culture and Tourism ("CCT") and requested that the CCT review and comment on Sprint's proposed Facility. After extensive review, the CCT determined the project will not have an effect on the State's historic, architectural or archaeological resources listed on, or eligible for,

the National Register of Historic Places. In addition, the CCT determined that the Facility will not have an effect on properties of traditional cultural importance to Connecticut's Native American community. Finally, the CCT recommended that Sprint provide the public with the opportunity to comment on Sprint's Application in accordance with the National Historic Preservation Act and the Connecticut Environmental Policy Act. The correspondence from the CCT is also included under Tab 14.

# (2) Endangered Species

As part of the NEPA review process, EBI Consulting reviewed the DEP's Natural Diversity Database ("NDDB"). The locations of species and natural communities within this database are based upon data collected over the years by the Natural Resources Center's Geological and Natural History Survey, other units of the DEP, private conversation groups, and the scientific community. The locations have been mapped on U.S.G.S. 7.5-minute quadrangle maps for the entire State of Connecticut by the Natural Diversity Database Unit. The point locations were generalized for the purposes of distributing data to the general public while maintaining the confidentiality of the exact species and community locations. The points were moved randomly by up to 500 feet in any direction and then buffered by ¼ mile. Therefore, the general locations are presented as polygons and the exact location of the species or community falls somewhere within the polygon, and not necessarily in the center of the polygon.

As part of the NEPA review, EBI Consulting screened the project area for State and Federally listed endangered, threatened, and special concern species and significant communities through the use of the NDDB. According to the DEP, if the project is not found within a hatched area, or overlapping a lake, pond or wetland that has any hatching, or upstream or downstream (by less than ½ mile) from a hatched area, the project is unlikely to affect any known occurrence

of listed species or significant natural community. In addition, according to the DEP, if any part of the project is within one of those areas, the project may have a conflict with a species or natural community. In cases of potential conflict (i.e., when one or more of the criteria above are met), EBI Consulting submits all applicable information to the DEP for review and comment. In this case, none of the DEP criteria were met and, therefore, no additional coordination with DEP was necessary. To verify that there is no potential conflict, EBI Consulting submitted project information to the DEP's Natural Diversity Database Unit for review and comment. The Connecticut NDDB Endangered Species Map is included under Tab 15.

# CONCLUSION

For the reasons described herein, Sprint respectfully requests that the Council issue a certificate of environmental compatibility and public need for the construction, maintenance and operation of an 80-foot telecommunications facility camouflaged as a flagpole at 160 West Street in Cromwell, Connecticut.

Respectfully submitted by:

SPRINT NEXTEL CORPORATION

Phomas J. Regan

# **ATTACHMENTS**

1.	U.S.G.S.	Topographic	Map

Aerial Photograph

- 2. Application Guide
- 3. Affidavit of Publication from The Hartford Courant

Affidavit of Publication from The Middletown Press

4. Abutters List

Letters to Abutters

Return Receipts

Resent Letters

- 5. Proof of Service List
- 6. 60-day Notice to the Towns of Cromwell and Middletown
- 7. Site Plan
- 8. Construction Schedule

Cost Estimate

- 9. Coverage Plots
- 10. Wetlands Maps
- 11. Bedrock Geological Map
- 12. Visual Resource Evaluation Report
- 13. Power Density Analysis Chart
- 14. NEPA Screening Report
- 15. CT Natural Diversity Database Endangered Species Map

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